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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,079	12/16/2004	Michie Sakamoto	042890	3428

38834 7590 06/13/2007  
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WASHINGTON, DC 20036

EXAMINER
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LISTVOYB, GREGORY

ART UNIT	PAPER NUMBER
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1711

MAIL DATE	DELIVERY MODE
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06/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/518,079

Applicant(s)

SAKAMOTO ET AL.

Examiner

Gregory Listvoyb

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1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/16/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

Claims 17-20 rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al (US patent 7128952).

Murakami discloses an optical film for LC display (Column 1, line 5) comprising polyimide laminated on Triacetyl Cellulose (TAC) (see Example 1), where  $n_x > n_y > n_z$  (see Table 1 and Example 1).

The laminate was obtained by applying a solution of polyimide onto a TAC with following stretching of the coating together with TAC.

Although Murakami does not explicitly teach that the above polyimide is 100% imidized, he discloses that the above polymer is exposed to the temperature up to 250 C. (Column 14, line 55). It is inherent, that at this temperature polyimide is fully cured.

***Claim Rejections - 35 USC § 102/103***

Claims 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Ezzell (US Patent 5969088) evidenced by Ando.

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Ezzell discloses a fluoro-containing polyimide for LC display (Abstract) and a method of synthesis (Example 1, column 14) and film preparation from a polyamic acid (Column 12, line 65) with further drying the film at 80C.

Ezzell does not explicitly teach about degree of imidization. However, the reference discloses a chemical imidization procedure (Example 1, Column 14), which allows to fully complete the process (imidization temperature of 120C vs 100C in the Application, where imidization is between 98 to 100%).

The Ezzell's optical film for liquid crystal display can be prepared by applying polyamic acid on Polystyrene, Polyester, TAC or Polycarbonate (Column 8, line 50 and Column 10, line 45).

Ezzell fails to disclose that  $n_x > n_y$ , whereas he discloses that  $n_x > n_z$ . However, Bezel's optical film prepared by roll-laminating (see Example 3). This process inherently implies stretching of the laminating film in the Machine direction (MD). As evidenced by Ando, in-plane birefringence ( $n_x > n_y$ ), typically occurs during film preparation, when polyimide macromolecules orient along the drawing direction (Page 320).

In order to prepare a polarizing film, it would be obvious to a person with ordinary skills in the art to biaxially stretch Ezzell's film to increase the difference between  $n_x$  and  $n_y$ .

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Listvoyb whose telephone number is (571) 272-6105. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Listvoyb  
Examiner  
Art Unit 1711

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James J. Seidleck  
Supervisory Patent Examiner  
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